

THIS OPINION WAS NOT WRITTEN FOR PUBLICATION

The opinion in support of the decision being entered today (1) was not written for publication in a law journal and (2) is not binding precedent of the Board.

Paper No. 17

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex parte PAUL K. HANNA and ANDRZEJ M. PIOTROWSKI

Appeal No. 94-0898
Application No. 07/785,644¹

ON BRIEF

Before CAROFF, KIMLIN and JOHN D. SMITH,, Administrative Patent Judges.

CAROFF, Administrative Patent Judge.

DECISION ON APPEAL

This is a decision on appeal from the final rejection of claims 1-4 and 7-8. Claims 5-6, the only other claims in the Hanna et al application, were merely objected to by the examiner and, therefore, are not before us for consideration.

¹ Application for patent filed October 31, 1991, which is according to appellants, a continuation-In-Part of application 07/602,533, filed October 24, 1990, now abandoned.

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The claims on appeal are directed to a process for removing Group VIII metal catalyst residues from a polyketone copolymer as described in representative claim 1, the sole independent claim:

1. A process for the removal of Group VIII metal catalyst residues from a carbon monoxide-olefin polyketone copolymer which comprises contacting the polyketone with an effective amount of a beta diketone compound to effect the removal of catalyst residues therefrom.

The references relied upon by the examiner are:

Brons et al (Brons)	4,798,884	Jan. 17, 1989
van Broekhoven et al (Van Broekhoven)	4,855,400	Aug. 8, 1989
Blytas et al (Blytas)	4,960,865	Oct. 2, 1990

All of the appealed claims stand rejected for obviousness under 35 USC ' 103 in view of either Brons or van Broekhoven or Blytas. We shall sustain this rejection since we are of the opinion that the examiner has established a prima facie case of obviousness which has not been convincingly rebutted.

In an attempt at rebuttal, appellants refer to Table 1 of Blytas which, according to appellants, shows that acetyl acetone (acac) is ineffective for recovering palladium from a polyketone copolymer. Therefore, in appellant's view, Blytas teaches away from using acac, one of the beta diketone compounds specifically disclosed in appellant's own specification as a useful reagent.

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In order to simplify the issues in this appeal, appellants ask us to focus our attention on the so-called ~~A~~negative teaching~~@~~ of Blytas. In doing so, we find that appellant's arguments are unpersuasive since we are not convinced that Blytas contains an unequivocal negative teaching of effectiveness with regard to acac for the following reasons:

The results reported by Blytas in Table 1 and the disclosure relating to those results, as interpreted by appellants, are ambiguous and somewhat inconsistent with the professed purpose of Blytas' invention. On the one hand, Blytas states that ~~A~~palladium was not extracted in these experiments~~@~~. On the other hand, Blytas states that ~~A~~the extractants tested were relatively inefficient for palladium recovery~~@~~, and not that they are totally ineffective. Moreover, Blytas does indicate that both acac and a hot water treatment (Blytas' invention) each appears to ~~A~~inhibit or remove a deleterious agent present in the polymer~~@~~. Further discussion by Blytas appear to suggest that the so-called deleterious agent might be $\text{HPd}(\text{CN})_3$, a palladium-containing acid. This discussion appears to suggest that at least some palladium is removed by acac as well as by hot water treatment, notwithstanding the results reported in the Table. In addition, the Table (Example 2) appears to show that Blytas' own

invention (hot water treatment) works no better than acac. Appellant's interpretation of the Table fails to explain these seemingly incongruous results. What all of this might mean is that palladium is removed from the polyketone copolymer in the Blytas tests but is not recovered in a pure state. After all the Table is entitled ~~A~~Palladium Removal From Polyketone~~@~~. If so interpreted, the results disclosed by Blytas do not constitute a negative teaching at all with regard to the Aremoval@ of palladium catalyst residue from a polyketone copolymer, as called for by the instant claims. Accordingly, Blytas' results appear to be subject to more than one interpretation, and we find no reason why we should accept appellant's interpretation over the alternative explanation outlined above. In any case, the inherent contradictions in Blytas relating to Table 1 compel us to give the tabulated data little weight.

We are also unpersuaded by the examples presented in appellant's specification. Appellants would like us to view Example No.6 as a comparative example demonstrating that the effectiveness of acac is lost if concentration and temperature are each below some critical threshold level. However, the specification indicates that all the examples, apparently even including Example No. 6, ~~A~~illustrate the invention@ (page 2,

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lines 32-33). If Example No. 6 illustrates appellant's invention, the instant claims must embrace Arelatively inefficient@ recovery of palladium, consistent with appellant's interpretation of the results reported by Blytas.

One more comment is in order. Even if we could agree with appellants that Blytas clearly teaches away from the use of acac to remove palladium from a polyketone, and we do not so agree, it should be noted that the instant claims are broadly directed to removal of AGroup VIII metal catalyst residues@, and not just to removal of palladium. As indicated by Blytas (col. 1, lines 40-42), metal catalysts falling within this category may include cobalt or nickel as well as palladium. Appellants have given no reason why any negative teaching regarding acac would have been expected to be applicable with respect to Group VIII catalyst residues in general, and not just to palladium.

For the foregoing reasons, the decision of the examiner is affirmed.

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No time period for taking any subsequent action in
connection with this appeal may be extended under 37 CFR '
1.136(a). See 37 CFR ' 1.136(b).

AFFIRMED

MARC L. CAROFF)	
Administrative Patent Judge)	
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)	
)	BOARD OF PATENT
EDWARD C. KIMLIN)	
Administrative Patent Judge)	APPEALS AND
)	
)	INTERFERENCES
)	
JOHN D. SMITH)	
Administrative Patent Judge)	

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